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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/418,237	10/14/1999	JOHN H. MACKAY	3996.004/DHE	8645

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EXAMINER

PURVIS, SUE A

ART UNIT	PAPER NUMBER
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1734

(9)

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/418,237

Applicant(s)

MACKAY ET AL.

Examiner

Sue A. Purvis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9, 12, 16, 19, 22, 25, 28, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto et al. (US Patent No. 4,472,328) in view of Schwarz (US Patent No. 4,091,164) and Kobylivker et al. (US Patent No. 6,072,005).

Sugimoto et al. discloses a process for producing a porous film or sheet. The film is formed by combining: (1) a polyolefin resin, with polypropylene as a leading component; (2) a filler, such as calcium carbonate; and (3) hydrocarbon polymer elastomer, which is used to improve pliability of the film (col. 1, lines 33-38 and 61-68; col. 2, lines 1-15 and 29-39; col. 3, lines 16-35). The materials are combined to form a sheet and then stretched to create pores in the sheet (col. 4, lines 40-68). The percentage of filler in the sheet is variable from 10 to 80% as shown in Tables 1-14. Sugimoto provides a porous film or sheet which shows well balanced physical properties and possesses a strong surface strength and a high pliability, and which, when biaxially stretched, shows excellent surface strength, excellent stretchability, and a high pliability, the inventors have achieved the present invention. Table A lists the different hydro

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carbon polymers used. TufpreneTM A (C-7) has a Melt Flow Rate of 2.6 g/ 10 minutes using the ASTM 1238 test method.

Sugimoto does not detail dart impact strength or WVTR for the disclosed film. The strength elongation is shown in the Tables.

Schwarz discloses a film with fillers added to created voids and at the polyolefin being between 10 to 60% polypropylene. Table 1 and 2 show that the impact strength for a 60g dart is between 10 to 55% successful.

It would have been obvious to one having ordinary skill in the art at the time the invention was made that based on the teachings of Schwarz, that the more polypropylene in the mix, the more likely the film will be able to withstand 100g dart (see Table 2), so it is within the purview of the artisan to create a film of high dart impact strength by varying the contents of the film.

Sugimoto and Schwarz are silent regarding WVTR.

Kobylikker disclose a breathable film of part high impact polypropylene which has a WVTR of 300 g/m² for 24 hours.

It would have been obvious to one having ordinary skill in the art at the time the invention was made that between 100 and 10000 as set out in claim 9 is a WVTR which is within the purview of the artisan, based on the teachings of Kobylikker.

3. Claims 10, 11, 17, 18, 23, 24, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto et al. in view of Schwarz and Kobylikker et al. as applied to claims 9, 16, 22, and 28 above, and further in view of Schwarz '892 (US Patent No. 4,116,892).

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Sugimoto et al. discloses that stretching is important aspect of the process, but does not disclose stretching the sheet between grooved rollers.

Schwarz '892 discloses a process for stretching a film using grooved roller pairs in the machine direction as seen in Figure 1 and 2. It will be appreciated that the grooved roll drawing permits multiple simultaneous draw necks which allow for further actual speed where draw tension is high. At high draw tension, the fibrillation phenomenon occurs which is highly desirable for porous films. Additionally, the grooved roll drawing permits a partial draw in multiple stages thereby further reducing the actual draw rate and increasing the production rate. And defects in the base film, i.e., gels, holes, etc. are carried through the grooved roll drawing with no interruption in the process as distinguished from drawing in conventional Godet and tenter frame drawing wherein such defects usually result in breaks and the necessity for subsequent shutdown (col. 8, lines 7-22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use grooved roller pairs as disclosed in Schwarz in the process of Sugimoto et al. in view of Schwarz and Kobylivker et al., because the use of grooved rollers results in less interruption in the process and allows for partial draw in multiple stages.

4. Claims 14, 15, 20, 21, 26, 27, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto et al. in view of Schwarz and Kobylivker et al. as applied to claims 9, 16, 22, and 28 above, and further in view of McCormack (US Patent No. 5,695,868).

Sugimoto et al. discloses that the film produced by its process has many properties which are useful in many different types of articles including shrink wrapping or clothes (col. 5, lines 46-68; col. 6, lines 1-15).

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McCormack discloses a film similar to the one in Sugimoto et al. which is bonded to a nonwoven web and used in creating personal absorbent articles and health care related items (col. 1, lines 12-28; col. 5, lines 40-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made that the next step in the process of Sugimoto et al. would be to bond the film to a nonwoven web and use this to create an article as disclosed in both Sugimoto et al. and McCormack, because McCormack shows that the bonding of the nonwoven web to the film is well known in the art to be the next step in creating these articles.

Response to Arguments

5. Applicant's arguments filed 19 May 2003 have been fully considered but they are not persuasive, because the examiner has found that at least one of the hydrocarbon polymers used in Sugimoto et al. has a melt flow index within the range applicant has claimed. TufpreneTM A is shown by the enclosed product sheet to have a Melt Flow Rate of 2.6 g/ 10 minutes using the ASTM 1238 test method.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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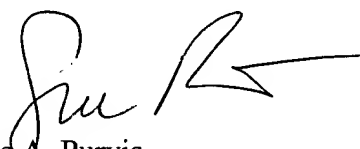
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue A. Purvis whose telephone number is 703-305-0507. The examiner can normally be reached on Monday through Thursday 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rick Crispino can be reached on 703-308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5665.

sp
June 30, 2003


Sue A. Purvis
Examiner
Art Unit 1734


RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700